

# SEQUENCE LISTING

<110> Cahoon, Rebecca E.

<120> Vitamin B Metabolism Proteins

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<151> 08-12-1998

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<212> DNA

<213> Zea mays

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<212> PRT

<213> Zea mays

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  20              25              30
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 Asn His Ile Phe Asp Glu Met Tyr Gln Ile Thr Asn Asp Glu Asp Lys 65 70 75 80  
 Lys Ser Thr Arg Asn Lys Tyr Val Pro Glu Ile Ile Glu Gly Asp Met 85 90 95  
 Asp Ser Ile Arg Pro Glu Val Lys Leu Phe Tyr Ser Ser Gln Gly Ser 100 105 110  
 Lys Ile Ser Asp Lys Ser His Asn Gln Glu Thr Thr Asp Leu His Lys 115 120 125  
 Cys Ile Ser Arg Ile His His Cys Thr Pro Asp Asp Glu Lys Pro Asn 130 135 140  
 Leu Cys Val Leu Val Thr Gly Ala Leu Gly Gly Arg Phe Asp His Glu 145 150 155 160  
 Ala Ala Asn Ile Asn Val Leu Tyr Leu Phe Ser Asp Met Arg Ile Val 165 170 175  
 Leu Leu Ser Asp Asp Cys Leu Ile Arg Leu Leu Pro Arg Thr His Arg 180 185 190  
 His Glu Leu Tyr Ile Glu Ser Ser Val Glu Gly Pro His Cys Gly Leu 195 200 205  
 Phe Pro Val Gly Ala Pro Ser Thr Ser Thr Thr Thr Thr Gly Leu Lys 210 215 220  
 Trp Asn Leu Ser Glu Ser Lys Met Arg Phe Gly Ser Met Ile Ser Thr 225 230 235 240  
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 Pro Glu Lys Gln Ser Glu Phe Leu Pro Phe Ile Ile Glu Asp His Val  
 35 40 45  
 Val Gly Phe Ile His Lys Gly Phe Val Glu His Leu Arg Gly Phe Gly  
 50 55 60  
 Asn Val Phe Ile Phe Pro Lys Asp Lys Tyr Asn Gly Gly Phe Tyr Gly  
 65 70 75 80  
 Asp Phe Val Ser Leu His Pro Met Leu Lys Thr Ala Glu Glu Arg Thr  
 85 90 95  
 Ser Ala Val Gly Tyr Val Val Glu Arg Leu Gly Glu Glu His Ile Pro  
 100 105 110  
 Gly Ile Arg Asn Glu Leu Tyr Pro Val Ile Ser Ser Phe Gly Ala Gln  
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 Ile Phe Phe Ser Leu Glu Arg Ala Ala Ala Pro Tyr Phe Gly Ile Lys  
 130 135 140  
 Val Tyr Gly Thr Gln Met Asn Gly Cys Val Glu Leu Asp Gly Gln Lys  
 145 150 155 160  
 His Leu Trp Ile Gly Lys Arg Ser Gly Thr Lys Ser Thr Tyr Pro Gly  
 165 170 175  
 Met Leu Asp Glu Leu Val Ala Gly Gly Leu Pro His Gly Ile Asn Cys  
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 Gln Gln Asn Leu Ala Lys Glu Cys Glu Glu Glu Ala Gly Ile Pro Arg  
 195 200 205  
 Ser Ile Ser Val Asn Ala Ile Pro Val Gly Ala Val Ser Tyr Lys Asp  
 210 215 220  
 Ile Asp Gly Tyr Arg Tyr Lys Arg Asp Val Leu Phe Cys Tyr Asp Leu  
 225 230 235 240  
 Lys Leu Pro Lys Asp Phe Ile Pro Lys Asn Lys Asp Gly Glu Val Asp  
 245 250 255  
 Ser Phe Lys Leu Ile Pro Val Thr Gln Val Ala Glu Ile Ile Arg Lys  
 260 265 270  
 Thr Gln Phe Phe Lys Ala Asn Cys Ala Leu Val Ile Ile Asp Phe Leu  
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<212> DNA  
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      20              25              30

Asn Gln Ser Leu Pro Arg Phe Ala Pro Leu Leu Trp Asp His Ala Gln
      35              40              45

Val Arg Val Cys Ala Asp Gly Gly Ala Asn Arg Val Tyr Asp Glu Met
      50              55              60

Pro Leu Phe Phe Pro His Gln Gln Pro Ser His Val Arg Thr Arg Tyr
      65              70              75              80

Lys Pro Asp Val Ile Lys Gly Asp Met Asp Ser Ile Arg Thr Glu Val
      85              90              95

Leu Asp Phe Tyr Ala Lys Leu Gly Thr Lys Ile Ile Asp Glu Ser His
      100             105             110

Asp Gln Asp Thr Thr Asp Leu His Lys Cys Val Ala Tyr Ile Arg Asp
      115             120             125

Leu Thr Pro Asn Ile Asp Gly Ala Glu Leu Cys Ile Leu Val Ala Gly
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130

135

140

Ala Leu Gly Gly Arg Phe Asp His Glu Ile Gly Asn Ile Asn Val Leu  
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Cys Arg Phe Ser Asn Thr Arg Ile Ile Leu Leu Ser Asp Asp Cys Leu  
 165 170 175

Ile His Leu Leu Pro Lys Asn His Cys His Lys Ile Phe Val Gln Ser  
 180 185 190

Ser Val Glu Gly Pro His Cys Gly Val Ile Pro Ile Gly Met Pro Ser  
 195 200 205

Gly Ser Ser Thr Thr Thr Gly Leu Lys Trp Asp Leu Asn Asp Ala Ala  
 210 215 220

Met Ser Phe Gly Gly Leu Ile Ser Thr Ser Asn Ile Val Lys Gly Glu  
 225 230 235 240

Ile Val Thr Val Gln Ser Asp Ser Asp Leu Leu Trp Thr Ile Ser Ile  
 245 250 255

Lys Lys Leu